allocation to deficit states in accordance with the directions issued by the respective Regional Electricity Boards from time to time.

Counter guarantee for fast track power projects

1362. SHRI SATISH AGARWAL: Will the Minister of POWER be pleased to state:

(a) whether Government propose extension of limited counter guarantees for a few more power projects, apart from the in-principle counter guarantees extended to the eight fast track power projects;

(b) if so, the eligibility criteria proposed for such limited counter guarantees; and

(c) the likely date from which such counter guarantees will be available?

THE MINISTER OF STATE OF THE MINISTRY OF SCIENCE AND TECHNOLOGY AND THE MINISTER OF STATE OF THE MINISTRY OF POWER (SHRI YOGINDER K. ALAGH): (a) No, Sir.

(b) and (c) Do not arise.

Development of Alternative to X-Rays

1363. SHRIMATI BASANTI SARMA:
DR. SHRIKANT RAMCHANDRA JICHKAR:

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether scientists at the National Physical Laboratory have developed alternative to X-rays;

(b) if so, the salient features of this discovery; and

(c) how will this benefit the common man?

THE MINISTER OF STATE OF THE MINISTRY OF SCIENCE AND TECHNOLOGY AND THE MINISTER OF STATE OF THE MINISTRY OF POWER (SHRI YOGINDER K. ALAGH): (a) scientists at the National Physical Laboratory (NPL) have not developed any alernative to X-rays.

(b) and (c) Do not arise.

Research and Development under New Economic Regime

1364. SHRI NILOTPAL BASU:
SHRI DIPANKAR MUKHERJEE:

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether attention of Government has been drawn to the press report dated 4th June, 1997 with the caption "R&D lags under the new economic regimes" appeared in the Hindu;

(b) if so, the reaction of Government thereto;

(c) since under the World Trade Organisation (WTO) dispension, issues relating to intellectual property rights (IPRs) are crucial to safe-guard national interests, whether CSIR laboratories have undertaken annual reviews of the intellectual property that had been licensed;

(d) whether CSIR has any mechanism to monitor transfer of technology and feedback from the end users; and

(e) what concrete steps Government propose to take for improvement of the situation?

THE MINISTER OF STATE OF THE MINISTRY OF SCIENCE AND TECHNOLOGY AND THE MINISTER OF STATE OF THE MINISTRY OF POWER (SHRI YOGINDER K. ALAGH): (a) Yes Sir.

(b) There has been a marginal decline in official estimates of R&D expenditure which refer to expenditure of R&D units registered with Department of Scientific & Industrial Research and expenditure incurred by Central and State

Governments as a percentage of GNP from 0.93% in 1989-90 to 0.80% in 1995-96. However, in absolute terms the R&D expenditure has gone up substantially.

(c) and (d) Council of Scientific & Industrial Research (CSIR) is perhaps the first and the only organisation in India to formulate and publically announce its Intellectual Property Management Policy. CSIR laboratories are in the forefront of intellectual Property and Patents movement in the country and account for about 20—25% share of all the patents filed in India by Indians.

The laboratories monitor the performance of their licensees through Business Development Groups. CSIR have now set up a Customer Satisfaction Evaluation Cell to monitor the feed back from end users, perhaps a pioneering effort unmatched by any other Government Organisation.

(e) Does not arise.

Structural Engineering Centre CSIR

1365. SHRI V. HANUMANTHA RAO: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) the activities of the Structural Engineering Research Centre of CSIR in Chennai;

(b) whether it accepts projects from State Governments;

(c) the outside earning SERC, Chennai in the lst three years; and

(d) if so, full details thereof?

THE MINISTER OF STATE OF THE MINISTRY OF SCIENCE AND TECHNOLOGY AND THE MINISTER OF STATE OF THE MINISTRY OF POWER (SHRI YOGINDER K. ALAGH): (a) The Structural Engineering Research Centre (SERC), Chennai, a constituent laboratory of Council of Scientific & Industrial Research (CSIR) is engaged in carrying out Research and Development in Structural Engineering *inter alia* covering dynamics, experimental mechanics, fatigue, computer aided analysis & design, and software development of structures, optimal design of transmission line towers and wind Engineering inlcluding cyclone desaster mitigation.

(b) The SERC, Chennai accepts projects related to its areas of R&D from diverse customers including State Governments.

(c) and (d) External Cash Flow (ECF) receipts from contracted R&D. consultancy, and services rendered for the last three years were as follows:—

(Rupees in Lakhs)

Year	Sector			Total
	Govt. (Central & State)	PSU (Central & State)	Pvt. (Sources)	
1994-95	18	27	81	126
1995-96	27	36	118	181
1996-97	33	18	160	211

दिल्ली में भूकंप

1366. **श्री राघवजी:** क्या विज्ञान और प्रौद्योगिकी मंत्री यह बताने की कृपा करेंगे कि:

(क) वर्ष 1997 में दिल्ली में भूकम्प के कितने झटके महसूस किए गए और इसके क्या कारण हैं;

(ख) इन झटकों से कितना नुकसान हुआ; और

(ग) भविष्य में भूकम्प के ऐसे झटकों को रोकने के लिए क्या उपाय किए जा रहे हैं?

विज्ञान और प्रौद्योगिकी मंत्रालय में राज्य मंत्री तथा विद्युत मंत्रालय के राज्य मंत्री (श्री योगिन्दर कुमार भगतराम अलघ): (क) पहली जनवरी से 23 जुलाई, 1997 के बीच मध्यम दर्जे के भूकंप के ऐसे कुल 14 झटके दर्ज किए गए जिसकी तीव्रता रिक्टर